**Amendments to the Specification:** 

Please replace the paragraph on page 27, beginning with line 20 with the following amended

paragraph:

All forward and reverse oligonucleotide primers incorporated appropriate

restriction enzyme sites to facilitate cloning into the pcDNA3.1 MCS region. All

forward primers were also designed to include the conserved Kozak nucleotide

sequence 5'-gccacc-3' immediately upstream of an 'atg' translation initiation codon

in frame with the target gene insert. The Kozak sequence facilitates the

recognition of initiator sequences by eukaryotic ribosomes. Typically, a forward

primer incorporating a BamH1 restriction enzyme site the primer would begin

with the sequence 5'-cgggatccgccaccatg-3' (SEQ ID NO: 260), followed by a

sequence homologous to the 5' end of that part of a gene being amplified. All

reverse primers incorporated a Not I restriction enzyme site sequence 5' -

ttgcggccgc-3' (SEQ ID NO: 261). All gene-specific forward and reverse primers

were designed with compatible melting temperatures to facilitate their

amplification.

Please replace Appendices I and II on pages 56-59 with the following amended Appendices I and

II:

APPENDIX I

ID-65

Forward Primer

5' - cggatccgccaccatgGCGGATCAAACTACATCGGTTC - 3' (SEQ ID NO:

**262**)

Reverse Primer

5' - ttgcggccgcGTTGGGATAACTAGTCGGTTTAGTCG (SEQ ID NO: 263)

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REPLY TO OFFICE ACTION OF JAN. 2, 2004

Length (including restriction sites) = 1541bp

Incorporating 1515bp of gene-specific sequence encoding 505 amino acids of the putative mature protein.

Annealing temperature for PCR amplification = 60°C

Sequence predicted to encode a signal peptide was omitted from amplified product

ID-66

**Forward Primer** 

5' - cggatccgccaccatgAATCTTTATTTCCATAGTACTCCCTTGC - 3' (SEQ ID

NO: 264)

**Reverse Primer** 

5' - ttgcggccgcAAAATGATCAGTTTGAGGGTAAAAGAG - 3' (SEQ ID NO: 265)

Length (including restriction sites) = 767bp

Incorporating 747bp of gene-specific sequence encoding 247 amino acids of the putative mature protein.

Annealing temperature for PCR amplification =  $60^{\circ}$ C

Sequence predicted to encode a signal peptide was omitted from amplified product

#### APPENDIX II

ID-65

Forward Primer

5' - catgccatgGCGGATCAAACTACATCGGTTC - 3' (SEQ ID NO: 266)

**Reverse Primer** 

REPLY TO OFFICE ACTION OF JAN. 2, 2004

# 5' - ttgcggccgcGTTGGGATAACTAGTCGGTTTAGTCG (SEQ ID NO: 263)

Length (including restriction sites) = 1534bp

Incorporating 1515bp of gene-specific sequence encoding 505 amino acids of the putative mature protein.

Annealing temperature for PCR amplification =  $60^{\circ}$ C

ID-83

Forward Primer

5' - catgccatggcaAAAATAGTAGTACCAGTAATGCCTC - 3' (SEQ ID NO:

<u> 267)</u>

ReversePrimer

5' - ttgcggccgcCTCTGAAATAGTAATTTGTCCG - 3' (SEQ ID NO: 268)

Length (including restriction sites) = 626bp

Incorporating 624bp of gene-specific sequence encoding 208 amino acids of the putative mature protein.

Annealing temperature for PCR amplification = 52°C

#### ID-89

Forward Primer

5' - catgccatgggaAAGAAAGCAAATAATGTCAGTCC - 3' (SEQ ID NO: 269)

Reverse Primer

5' - ttgcggccgcATTGGGTGTAAGCATTTTTC -3' (SEQ ID NO: 270)

Length (including restriction sites) = 990bp

Incorporating 969bp of gene-specific sequence encoding 323 amino acids of the putative mature protein.

Annealing temperature for PCR amplification = 54°C

REPLY TO OFFICE ACTION OF JAN. 2, 2004

ID-93

Forward Primer

5' – catgccatgggaACTGAGAACTGGTTACATACTAAAG – 3' (SEQ ID NO:

# **271**)

ReversePrimer

5' - ttgcggccgcATTAGCTTTTTCAACAATTTCTC - 3' (SEQ ID NO: 272)

Length (including restriction sites) = 759bp

Incorporating 744bp of gene-specific sequence encoding 248 amino acids of the putative mature protein.

Annealing temperature for PCR amplification = 51°C

### ID-96

Forward Primer

5' - ctagctagccgATGTTTGCGTGGGAAAG - 3' (SEQ ID NO: 273)

ReversePrimer

5' - ttgcggccgcATAAGATTTAACAATACCAAGTAATATAGC - 3' (SEQ ID

# NO: 274)

Length (including restriction sites) = 944bp

Incorporating 921bp of gene-specific sequence encoding 307 amino acids of the putative mature protein.

Annealing temperature for PCR amplification =  $53^{\circ}$ C

### rib (control)

Forward primer

5' - ggggtaccggccaccATGGCTGAAGTAATTTCAGGAAGT -3' (SEQ ID NO:

### **275**)

Reverse primer

5' - cggaattccgTTAATCCTCTTTTTTTTTTTTAGAAACAGAT -3' (SEQ ID NO:

### **276**)

REPLY TO OFFICE ACTION OF JAN. 2, 2004

Length (including restriction sites) = 3559bp

Incorporating 3531bp of gene-specific sequence encoding 1177 amino acids of the mature protein.

Annealing temperature for PCR amplification = 55°C